### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): MAMITSU et al. Atty. Dkt.: 01-103-CON6

Serial No.: Unknown Group Art Unit:

Filed: Concurrently herewith Examiner:

Title: SEMICONDUCTOR DEVICE

HAVING RADIATION

STRUCTURE

Commissioner for Patents Date: November 4, 2003 Arlington, VA 22202

## **INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §1.56, the reference(s) listed on the attached Form PTO-1449 is/are being submitted for consideration by the Examiner without any admission that it/they constitute(s) statutory prior art, or without any admission that it/they contain(s) subject matter that anticipates the invention or renders the invention obvious to a person of ordinary skill in the art.

The Examiner is requested to initial the attached PTO Form-1449 and to return a copy of same to the undersigned attorney as proof that the listed reference(s) has/have been considered and made of record.

Respectfully submitted,

David G. Posz Reg. No. 37,701

Posz & Bethards, PLC 11250 Roger Bacon Drive, Suite 10 Reston, VA 20190 (703)707-9110 (phone) Customer No. 23400

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	APPLICANT	MAMITSU et al	•	
	FILING DATE	Nov. 4, 2003	GROUP	-

#### REFERENCE DESIGNATION

#### **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	5,708,299	Jan. 13, 1998	Teramae et al		
	6,072,240	June 6, 2000	Kimura et al		
	5,248,853	Sep. 28, 1993	Ishikawa et al		
	5,801,445	Sep. 1, 1998	Ishihara et al		
	5,229,646	Jul. 20, 1993	Tsumura		
	4,558,345	Dec. 10, 1985	Dwyer et al		
	4,546,374	Oct. 8, 1985	Olsen et al		
	4,984,061	Jan. 8, 1991	Matsumoto		
	5,481,137	Jan 2, 1996	Harada et al.		
	4,827,082	May 2, 1989	Horiuchi et al		
	4,538,170	Aug. 27, 1985	Yerman		

### FOREIGN PATENT DOCUMENTS

TRANSLATION

DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS	YES	NO
EP0660396	12/24/93	Europe					
EP0450980	4/05/91	Europe					
6-291223	10/94	JAPAN					
3-20067	01/91	JAPAN					
2146174	11/85	GB					

	Takamura, "Electronic Technology", pp. 56-59 (1999-5).
	Johnson et al., "Silicon Precipitate Nodule-Induced Failures of MOSFETS", ISTFA '91 (Nov. 11-15, 1991), pp. 161-165.
EXAMINER	DATE CONSIDERED

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	FILING DATE	Nov. 04, 2003	GROUP

### REFERENCE DESIGNATION

## **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	4,646,129	Feb. 24, 1987	Yerman et al		
	4,141,030	Feb. 20, 1979	Eisele et al		
	6,448,645	Sep. 10, 2002	Kimura		
	6,538,308	Mar. 25, 2003	Nakase		
	6,380,622	Apr. 30, 2002	Hirai		
	09/675,209	Filed Sept. 29, 2000	Suzuki		
	5,221,851	Jun. 22, 1993	Gobrecht et al.		

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11-260979	09/99	JAPAN					
4-27145	01/92	JAPAN					
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4-12555	01/92	JAPAN					
4-103150	04/92	JAPAN					
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61-166051	07/86	JAPAN					
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	FILING DATE	Nov. 04, 2003	GROUP	

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	5,990,550	Nov. 23, 1999	Umezawa		
	5,608,610	Mar. 4, 1997	Brzezinski		
	5,396,403	Mar. 7, 1995	Patel		
	5,293,301	Mar. 8, 1994	Tanaka et al.		
	5,641,997	June 24, 1997	Ohta et al.		
	5,789,820	Aug. 4, 1998	Yamashita		

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DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS	YES	NO
60-235430	11/85	JAPAN					
07-240432	9/95	JAPAN					
8-45874	2/96	JAPAN					
60-95947	05/85	JAPAN					
61-265849	11/86	JAPAN					
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### **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE NAME		CLASS	SUB CLASS
	2002/0158333	Oct. 31, 2002	Teshima		
	S/N 10/201556	July 24, 2002	Hirano et al.		
	5726466	March 10, 1998	Nishitani		
	4,470,063	Sep. 4, 1984	Arakawa et al.		-
	5,708,299	Jan. 13, 1998	Teramae et al		

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JP-A-7-45765 *	2/14/95	JAPAN			,	X				
JP-A-11-186469 *	7/9/99	JAPAN				X				
JP-A-2000-31351 *	1/28/00	JAPAN				X				
JP-A-2001-118961 *	4/27/01	JAPAN	-			X				

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EXAMINER		DATE CONSIDERED					